Reviewer's report

Title: Global Health Education in Germany: needs, deficits and potential benefits - a cross-sectional study among medical students (Part 1 of 2: Mobility patterns & educational needs and demands)

Version: 2 Date: 1 June 2010

Reviewer: Karyn Baum

Reviewer's report:

- Major Compulsory Revisions

This paper is attempting to be two different things. The first is a general informational survey about German students’ involvement in international rotations. The second is a needs assessment for global health and tropical medicine education. However, due to the lack of generalizability in the information obtained I am not sure they can draw conclusions regarding the needs assessment. In addition, needs assessments often define a gap identified through other means, such as comparison with national recommendations or information demonstrating that physicians currently in practice and not able to provide adequate care in some way.

1. The 1.4% response rate severely hampers the ability to draw any conclusions at a national level. As noted, even within the 1.4% response rate the data is skewed to several schools. Drawing a national conclusion regarding student mobility and curricular offerings is, I believe, beyond the scope of this survey. The authors may want to consider limiting their conclusions or even only reporting results on the schools with better response rates.

2. Inquiring about offered curricular to ALL YEARS of students does not fundamentally make sense, and might results in a lower “yes” response rate than in truth. For example, if you asked my students who has had a Surgical clerkship, all 1st and 2nd year students would say “no”. All 4th years would say “yes”, and some 3rd year students would respond “yes” and some “no”. It would appear that only 37.5% of students have exposure to a Surgical clerkship at my school, however it is really 100%. It is for this reason that we tend to ask graduating students about their training, not freshman students.

3. Likewise, asking very junior students what should be in their curriculum is also problematic. Do first year students have a well-founded appreciation for what knowledge, skills, and attitudes they require in order to be physicians today? A needs assessment often asks those in practice what they SHOULD have learned, or compares it to national/international standards.

4. The survey only asked if students had FULL COURSES (this implies many hours spent on the material) in global health and tropical medicine, which might
lower the “yes” rate. I might imagine that they had exposure to these topics as parts of other courses (for example, Infectious Diseases). For example, I would be quite surprised if such a low percentage of students learned about malaria. Please comment on this limitation, and also the appropriateness of an entire course on these topics.

5. Likewise, this report relied on self-report of curricula and experiences. Many students may not recall correctly, especially if this was material learned several years prior. The students may have been exposed to these topics and not identified them as global health or tropical medicine, or may simply not recall covering the material.

6. Again, having students of all years report on their international electives likely gives an artificially low “yes” rate. The authors would not want readers to unintentionally believe that only 1/3 of German medical students do international rotations during their training. The likely “true” number is much closer to the 5th and 6th year responses. The authors may want to comment on this as well.

7. Only 39% of students felt that global health course opportunities were not adequate, and only 15% felt that the global health learning opportunities should be compulsory. Only half of students even knew what was offered at their institutions. What percent of 5th and 6th year students felt this way?

8. Might the only viable conclusion be that, in many German schools, students are not aware of the current curricula in these areas, and that a large percentage do at least one rotation in another country?

- Minor Essential Revisions

There are numerous grammatical and punctuation errors throughout the manuscript. I would recommend that this be reviewed by an individual who speaks English as their primary language.

Some examples (this is only a small example) of these include:

1. page 7, 5th line from the bottom-remove “;” and replace with a comma. Also remove the comma after the word “respondents”.
2. Line 1, page 4, remove “out”
3. page 5, second paragraph, second sentence, remove the comma (not needed)
4. “Latter” not “Ladder”, page 11
5. Page 13 has a text problem.
6. Check language on page 14, 5th line from bottom. The sentence that begins with “Especially” is not a full sentence.
7. Consider replacing “faculty” with “school” or “institution”, as medical faculties is not the correct terminology for the US-based reader. Faculty instead refers to the individuals employed by the school.
Please comment on the difference between “elective compulsory” courses as opposed to “optional” courses?

- Discretionary Revisions

The authors might consider shortening some of the results sections a bit. For example, when the authors state that 91% did not have a course in global health, they do not really need to then report the dichotomous result that 9% did. (page 10)

Quality of written English
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This article is not suitable for publication unless extensively edited. Please see my comments above in the “Minor Revisions” section. Also please note that my list of the language issues is my no means complete.

Statistical review
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I do believe the results should be reviewed by an expert statistician. Such a review may be needed to assess the validity of the authors’ conclusions given the low response rate on the survey and the skew in originating schools. I would ask the statistician if the schools with only a few responders should be excluded from analysis entirely. Also, some of the subgroup analyses may need to be redone.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests’